

REMARKS

As a preliminary matter, it is noted that the Examiner has again not provided Applicant an initialed copy of the Information Disclosure Statement filed on March 7, 2003 ("IDS"). A copy of the IDS with a stamped-post card showing receipt by the USPTO was submitted in the amendment filed February 11, 2004. It is respectfully requested that the Examiner provide an initialed copy of the IDS indicating that the reference cited therein has been considered and made formally of record.

The indication of allowable subject matter in claims 2-4, 8-12 and 14-28, as well as the Examiner's clear and detailed Office Action, is acknowledged and appreciated. For the following reasons, it is respectfully submitted that all claims are in condition for allowance.

Claims 1, 6 and 7 stand rejected under 35 U.S.C. § 103 as being unpatentable over Corey '589 ("Corey") in view of Bollin, Jr. et al. '176 ("Bollin") and Kurosaki et al. '532 ("Kurosaki"). This rejection is respectfully traversed for at least the following two reasons. First, it is respectfully submitted that the proposed combination does not disclose the claimed invention. Second, the proposed combination is improper.

A. Proposed combination does not disclose claimed invention

Claim 1 recites in pertinent part, "wherein the *protein concentration* in said solution to be detected is determined based on the intensities of said transmitted light and said scattered light" (emphasis added). The Examiner admits that neither Corey nor Bollin disclose this feature and therefore relies on Kurosaki for attempting to overcome this deficiency of Corey and Bollin. However, Kurosaki describes only measuring

“transmitted light and/or scattered light ..., thereby analyzing *various properties* of the liquid” (see col. 6, lines 32-35). Accordingly, Kurosaki does not disclose measuring both transmitted and scattered light specifically for measuring a *single* property such as protein concentration. For example, in the device of Kurosaki, the transmitted light may be measured to determine volume and the scattered light may be measured to determine concentration. Indeed, Kurosaki is silent as to an actual embodiment where both transmitted and scattered light are measured, let alone suggest using both measurements for determining a single property such as protein concentration. As is well known in patent prosecution, “inherency may not be established by probabilities or possibilities”, Scaltech Inc. v. Retec/Tetra, 178 F.3d 1378 (Fed. Cir. 1999).

The Examiner is directed to MPEP § 2143.03 under the section entitled “All Claim Limitations Must Be Taught or Suggested”, which sets forth the applicable standard:

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (citing *In re Royka*, 180 USPQ 580 (CCPA 1974)).

In the instant case, the pending rejection does not “establish *prima facie* obviousness of [the] claimed invention” as recited in claim 1 because the proposed combination fails the “all the claim limitations” standard required under § 103.

B. Proposed combination is improper

Moreover, it is respectfully submitted that the proposed combination is improper because the Examiner has not provided the requisite *objective* evidence *from the prior art* that “suggests the desirability” of the proposed combination. Kurosaki merely describes the *capability* of measuring transmitted and scattered light, rather than

suggesting doing so for any particular purpose. Indeed, Kurosaki is completely silent as to any benefit or advantage for measuring both transmitted and scattered light, let alone suggest doing so *for determining a single property*. Kurosaki merely describes the measurements in passing as an *incidental* description but does not provide any motivation for doing so.

As is well known in patent law, a *prima facie* showing of obviousness can only be established if the prior art "suggests the desirability" of the proposed combination using objective evidence. The Examiner is directed to MPEP § 2143.01 under the subsection entitled "Fact that References Can Be Combined or Modified is Not Sufficient to Establish *Prima Facie* Obviousness", which sets forth the applicable standard:

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. (*In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990)).

In the instant case, even assuming *arguendo* that Corey can be modified by Kurosaki, it is submitted that the "mere fact that [Corey and Kurosaki] can be combined ... does not render the resultant combination obvious" because nowhere does the *prior art* "suggest the desirability of the combination" as set forth by the Examiner.

As mentioned above, Kurosaki is silent as to why one would or should use both measurements. The Examiner alleges that the combination "would prove helpful because it would be a means to self-check the results to ensure that the same concentration was derived by both optical measurements and would also eliminate error derived from background noise potentially present in any single sample." However, it is respectfully submitted that this asserted motivation is based solely on improper hindsight reasoning using only Applicant's specification as a guide to reconstruct the claimed invention using

bits and pieces of the cited prior art. Indeed, as described on page 16, lines 4-14 of Applicant's specification, transmitted light intensity can be used for a **high** concentration range while scattered light intensity can be used for a **low** concentration range.

Accordingly, the Examiner's asserted motivation "to self-check the results to ensure that the same concentration was derived by both optical measurements" is not technically accurate, let alone derived from the prior art, because the two optical measurements would be used for different concentration ranges and would therefore NOT describe the same concentration. As previously mentioned, Kurosaki is completely silent as to measuring both transmitted and scattered light for a single property, let alone suggest doing so to ensure the same concentration was derived by both measurements and even less to eliminate error from background noise.

The Examiner is further directed to MPEP § 2143.01 under the subsection entitled "Fact that the Claimed Invention is Within the Capabilities of One of Ordinary Skill in the Art is Not Sufficient by Itself to Establish *Prima Facie* Obviousness", which sets forth the applicable standard:

A statement that modifications of the prior art to meet the claimed invention would have been [obvious] because the references relied upon teach that all aspects of the claimed invention were **individually** known in the art is **not** sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. (citing *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993)).

In the instant case, even assuming *arguendo* that the cited prior art "teach that all aspects of the claimed invention [are] individually known in the art", it is submitted that such a conclusion "is not sufficient to establish a *prima facie* case of obviousness" because there is no **objective** reason on the record to combine the teachings of the cited prior art. In

contrast, Corey and Kurosaki are completely silent as to suggesting the *combination* of measuring both transmitted and scattered light for the specific use of determining a single property such as protein concentration.

Only Applicant's specification discloses and provides the motivation for measuring both transmitted and scattered light intensity. As described on, for example, page 16, lines 4-14 of Applicant's specification, one example of an advantage of measuring both types of light intensities is the ability to create accurate measurements over a "dynamic range" while eliminating conventionally needed steps *such as diluting solutions in the high concentration range*, thereby increasing accuracy and efficiency, etc..

There is no objective evidence on the record that the prior art "suggests the desirability" of such a combination as recited in claim 1. At best, the Examiner has attempted to show only that the elements of the claimed invention are *individually* known without providing a *prima facie* showing of obviousness that the *combination* of elements recited in the claims is known or suggested in the art. For all the foregoing reasons, it is submitted that the proposed combination of at least Corey and Kurosaki is improper.

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claim 1 is patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also patentable. In addition, it is submitted that the dependent claims are patentable based on their own merits by adding novel and non-obvious features to the combination. None of the cited prior art disclose or suggest

actively using both transmitted/scattered light intensities for a single property, let alone in the particular *relative* manner recited in claims 6 and 7 (e.g., high vs. low concentration range, comparing, etc.), some of the benefits of which are described throughout Applicant's specification.

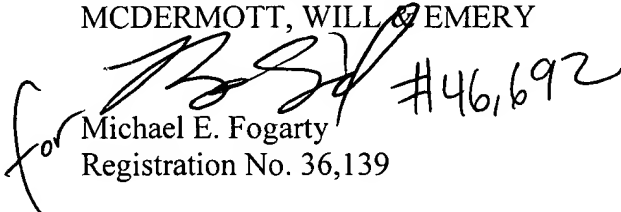
Based on all the foregoing, it is submitted that claims 1 and 6-7 are patentable over the cited prior art. Accordingly, it is respectfully requested that the rejection under 35 U.S.C. § 103 over Corey in view of Bollin and Kurosaki be withdrawn.

CONCLUSION

Having fully and completely responded to the Office Action, Applicants submit that all of the claims are now in condition for allowance, an indication of which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,
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